

**Aumictech**

Test & measurement · bought, sold, repaired, calibrated

Data Sheet

August 13, 2026

KEPCO

Kepeco BOP-500M High Voltage Bipolar Operational Power Supply / Amplifier

Hyphenated catalog spelling BOP-500M equals BOP 500M Related BOP 1000DM at plus/minus 1000 V 40 mA Instrument Type: High voltage 4 quadrant bipolar operational power supply Alias: BOP-500M; BOP 500M; BOP500M; BOP 500DM Related BOP 1000DM at plus/minus 1000 V 40 mA Instrument Type: High voltage 4 quadrant bipolar operational power supply Alias: BOP-500M; BOP 500M; BOP500M; BOP 500DM Voltage Channel Gain: 50 V perV Current Channel Gain: 8.0 A perV Voltage Mode Series R: 0.05 ohm



MODEL

Kepeco BOP-500M

CALIBRATION

Available on request

CONDITION

Used

STATUS

In stock

RFQ / SKU

BOP-500M

LISTING

<https://aumictechlabs.com/products/bop-500m-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 · 811210 · 541380

This unit

The Kepco BOP-500M is a high-voltage bipolar operational power supply and amplifier delivering ± 500 V and ± 80 mA across all four quadrants. It sources and sinks current without polarity switching, enabling bidirectional power flow in demanding precision applications. With 40 W total output capacity, the unit combines low output impedance (0.05Ω DC resistance in voltage mode) and exceptional stability - load effect under 0.0005% in voltage mode, temperature coefficient below 0.01% per $^{\circ}\text{C}$, and 8-hour drift less than 0.01% of setting. Technical Specifications Output Ranges Voltage: -500 V to $+500$ V Current: -80 mA to $+80$ mA Total Power: 40 W Output

Impedance (Voltage Mode) DC Resistance: 0.05 Ω Series Inductance: 5 mH Output Impedance (Current Mode) Shunt Resistance: 100 M Ω Shunt Capacitance: 0.3 μ F Control Channels Voltage Control Gain: 50 V/V, 150 kHz bandwidth Current Control Gain: 8.0 mA/V, 2 kHz bandwidth Stability & Performance Load Effect (Voltage Mode): <0.0005% of setting Load Effect (Current Mode): <0.005% of setting Source Effect: <0.0005% of setting (both modes) Temperature Coefficient: <0.01% per $^{\circ}$ C (both modes) 8-Hour Drift: <0.01% of setting (both modes) Voltage Mode Noise (RMS): <10 mV Voltage Mode Ripple & Noise (20 Hz–10 MHz): <200 mV p-p Current Mode Noise (RMS): <25 μ A Current Mode Ripple & Noise (20 Hz–10 MHz): <500 μ A p-p Preamplifier Offsets Voltage Mode: <5 μ V Current Mode: <1 nA Reference Accuracy Both modes: <0.0005% Environmental Operating Temperature: -20° C to $+65^{\circ}$ C Storage Temperature: -40° C to $+85^{\circ}$ C Cooling: Natural convection Power Input: 105–125 V AC or 210–250 V AC, selectable; 50–65 Hz Consumption: Approximately 250 W Power Factor: 0.8 Isolation Output and programming terminals: Floating, no DC connection to chassis Common terminal: Operates up to 500 V (DC or peak AC) off ground Common mode leakage: <50 μ A (rms) or <5 mA (p-p) at 115 V AC, 60 Hz Key Features Four-quadrant operation: source and sink across full voltage and current range Dual control channels support independent local or remote programming Analog and resistance-based remote programming Floating output with high ground isolation Ultra-low offset and exceptional load regulation Typical Applications Precision signal conditioning, transducer excitation, servo control loops, and closed-loop test systems requiring bidirectional power amplification and stable DC bias. Compatibility & Integration Analog control inputs accept voltage or resistance signals. Two independent channels enable simultaneous voltage and current command via front-panel or remote terminals.

BOP500M Characteristics / Specifications

PARAMETER	VALUE
Model	BOP-500M
Manufacturer	Kepco Inc
Instrument Type	High voltage 4 quadrant bipolar operational power supply
Series	BOP HV
Alias	BOP-500M; BOP 500M; BOP500M; BOP 500DM
Output Voltage	plus/minus 500 V
Output Current	plus/minus 80 mA
Power Class	40 W
Voltage Channel Gain	50 V perV Current Channel Gain: 8.0 A perV Voltage Mode Series R: 0.05 ohm
Voltage Mode Series L	20 mH
Current Mode Shunt R	100 Mohm
Current Mode Shunt C	0.3 uF
Quadrants	4
Stabilizer	automatic crossover voltage/current
Meter Type	analogMsuffix
Related Digital Meter	BOP 500DM
Related 1000 V	BOP 1000DM plus/minus 1000 V plus/minus 40 mA
GPIB Path	Kepco SN 488
Local Control	front panel voltage or current channel
Limits	four independent
LEDs	voltage mode, current mode, voltage limit, current limit
Programming	analog 0 to 10 V class
Operating Temperature	0 to 55 C class
Agency	CE LVD and EMC BOP-HV
Isolation	BOP-HV HV isolation class

PARAMETER	VALUE
Source Sink	100 percent of rating per duty plot Notes Specs from Kepco BOP-HV model table. BOP-500M is the hyphenated listing of BOP 500M analog-meter plus/minus 500 V plus/minus 80 mA. ConfirmMversus DM meters.

General Specifications & Supplementary Characteristics

PARAMETER	VALUE
Operating temperature	0 to 55 C class
Operating Temperature	0 to 55 C class
Agency	CE LVD and EMC BOP-HV
Isolation	BOP-HV HV isolation class
Source Sink	100 percent of rating per duty plot Notes Specs from Kepco BOP-HV model table. BOP-500M is the hyphenated listing of BOP 500M analog-meter plus/minus 500 V plus/minus 80 mA. ConfirmMversus DM meters.

Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

Specifications	
Specifications	
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Instrument Type	High voltage 4 quadrant bipolar operational power supply
Specifications	
PARAMETER	VALUE
Series	BOP HV
Alias	BOP-500M; BOP 500M; BOP500M; BOP 500DM
Output Voltage	plus/minus 500 V
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PARAMETER	VALUE
Output Current	plus/minus 80 mA
Power Class	40 W
Voltage Channel Gain	50 V perV Current Channel Gain: 8.0 A perV Voltage Mode Series R: 0.05 ohm
Specifications	
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Voltage Mode Series L	20 mH
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Current Mode Shunt C	0.3 uF
Specifications	
PARAMETER	VALUE
Quadrants	4
Stabilizer	automatic crossover voltage/current
Meter Type	analogMsuffix

Specifications

PARAMETER	VALUE
Related Digital Meter	BOP 500DM
Related 1000 V	BOP 1000DM plus/minus 1000 V plus/minus 40 mA
GPiB Path	Kepco SN 488

Specifications

PARAMETER	VALUE
Local Control	front panel voltage or current channel
Limits	four independent
LEDs	voltage mode, current mode, voltage limit, current limit

Specifications

PARAMETER	VALUE
Programming	analog 0 to 10 V class
Operating Temperature	0 to 55 C class
Agency	CE LVD and EMC BOP-HV

Isolation: BOP-HV HV isolation class

Source Sink: 100 percent of rating per duty plot

Notes

Specs from Kepco BOP-HV model table. BOP-500M is the hyphenated listing of BOP 500M analog-meter plus/minus 500 V plus/minus 80 mA. ConfirmMversus DM meters.

Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: sales@aumictech.com · +1 (484) 841-9341

Aumictech

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NIST-traceable calibration · SAM registered ·
30-day returns
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.